Mitigation Monitoring and Reporting Program

Introduction

Assembly Bill (AB) 3180, enacted by the California Legislature in 1988, requires lead agencies to prepare and adopt a program to monitor and/or report on all mitigation measures required in conjunction with certification of an Environmental Impact Report (EIR) or adoption of a Mitigated Negative Declaration (MND) pursuant to the California Environmental Quality Act (CEQA).

A public agency must certify an EIR or adopt a Mitigated Negative Declaration when approving a discretionary project that could significantly affect the environment in an adverse manner. The monitoring or reporting program is intended to ensure the successful implementation of measures that public agencies impose to reduce or avoid the significant adverse impacts identified in an environmental document. Adoption of the monitoring program is to occur when a public agency makes the findings to approve a project requiring an EIR or when adopting an MND. There is no statutory requirement for a lead agency to circulate a monitoring program for public review prior to adopting the program.

The monitoring program should specify the steps whereby implementation of project mitigation measures can be verified during project construction and operation. Typically, the monitoring program should, for each mitigation measure, identify the entity responsible for implementing the measure and an individual, qualified professional, or agency responsible for ensuring compliance. The monitoring program should also identify: the action or actions required to ensure compliance; when and how frequently monitoring should occur; a mechanism for reporting compliance or non–compliance; and an agency that receives and monitors the reports on compliance. AB 3180, as promulgated in Public Resources Code Section 21081.6, does not require a mitigation monitoring program to include measures imposed to mitigate the environmental effects of less-than-significant impacts.

Monitoring Program

The purpose of this Mitigation Monitoring and Reporting Program (MMRP) is to present a thorough approach for monitoring the implementation of the measures required to mitigate the significant and potentially significant impacts identified in the *Gateway Park Draft Environmental Impact Report* (DEIR). The MMRP identifies each mitigation measure for a significant impact and specifies the means for verifying successful implementation. Failure to comply with all required mitigation measures will constitute a basis for implementing agencies to withhold building permits or undertake legal enforcement actions.

Project Approvals

Prior to each successive approval during development of the proposed project, the project implementer shall confirm via the MMRP table (included in this document) proper implementation of all mitigation measures required to that point in time. If any mitigation measures have not been

implemented as required, the permit or other approval shall be withheld until successful implementation of the measure has been confirmed by the project implementer. If noncompliance of required mitigation measures occurs following completion of construction and project occupancy, the failure shall be grounds for revocation of the permit(s) for the project by the implementing agencies.

MMRP Table

The heart of this document is the MMRP table, which identifies the monitoring and reporting requirements for each mitigation measure identified in the DEIR. More specifically, the table provides the following information for each mitigation measure:

- **Mitigation Measure** - the verbatim text of the mitigation measure as adopted by the Bay Area Toll Authority (BATA). In some cases, the measure may differ slightly from the language presented in the DEIR circulated for public review.
- **Action** - all activities necessary to verify successful implementation of the mitigation measure.
- **Implementing Party** - the entity responsible for implementing the mitigation measure.
- **Monitoring Party** - the person or agency responsible for physically verifying that the mitigation measure has been implemented and for recording the verification. In some cases, an outside regulatory agency may be involved in determining or ensuring mitigation compliance, but reporting of compliance in the MMRP table is the responsibility of the monitoring party.
- **Timing** - the phase of the project during which monitoring activities must occur and/or milestone(s) at which single–event monitoring activities must occur.

Reporting

The MMRP table shall be maintained on file at the offices of the Bay Area Toll Authority until, at a minimum, all mitigation measures have been successfully implemented and verified by the implementing agencies.

EXHIBIT MMRP-1
Gateway Park - Mitigation Monitoring or Reporting Plan

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
AESTHETICS				
MM-AES-1: Apply aesthetic treatments. New fencing shall be designed to blend with the surrounding built and natural environments so that the new features complement the visual landscape. Aesthetic considerations shall be balanced with cost, safety, maintenance, and durability. At a minimum, unless made of natural materials, any proposed fencing shall be powder coated and colored a shade that is two to three shades darker than the surrounding area such as a dark evergreen, black, or dark brown color. These darker colors allow fencing to recede into the visual landscape and provide for more transparent views through the fencing. Light or bright colors shall be avoided because they create more of a visual barrier, are less transparent, and increase glare. Colors may be chosen from the U.S. Department of the Interior Bureau of Land Management Standard Environmental Colors Chart CC-001: June 2008. Because color selection will vary by location, the facility designer may employ the use of color panels evaluated from key observation points during common lighting conditions (front light versus backlighting) to aid in the appropriate color selection. Color selection shall be made for the coloring of the most prevalent season. Panels shall be a minimum of 3 feet-by-2 feet in dimension and evaluated from various distances within 1,000 feet to ensure the best possible color selection. Paints used from the color panels and structures shall be color matched directly from the physical color chart, rather than from any digital or color-reproduced versions of the color chart. Appropriate paint type shall be selected for the finished structures to ensure long-term durability of the painted surfaces and environmental safety. The appropriate operating agency or organization shall maintain the paint color over time. Fencing shall be managed and maintained for a well-kept appearance by abating vandalism, graffiti, or damage semiannually. The fence shall be limited to no more than 4 feet at Radio Beach and shall not use chain or mesh style fencing in order to reduce the potential for any interference with kiteboarding activities. The style for the fence has not been determined, but could be a wooden beam and post style fence similar to what is commonly used by EBRPD at many of their park units. The project implementer will coordinate with current site users, including kiteboarders and BCDC, during fencing design to take site user input into final design.	Project implementer to design fencing to be aesthetically compatible with surrounding environment. Project implementer to coordinate with current site users on design.	Project Implementer	Implementing Agency	Before construction activities are initiated (all phases that include new fencing)

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
AIR QUALITY				
MM-AQ-1. Implement BAAQMD basic control measures to control construction-related dust emissions. In accordance with BAAQMD's current air quality guidelines (2017), the project's construction contractor shall implement the following BAAQMD-recommended control measures to reduce particulate matter emissions from construction activities. • Water all exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) twice daily. • Cover all haul trucks transporting soil, sand, or other loose material off site. • Remove all visible mud or dirt track-out onto adjacent public roads using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • Limit vehicle speeds on unpaved roads to 15 miles per hour. • Complete paving of all roadways, driveways, and sidewalks as soon as possible. Lay building pads as soon as possible after grading unless seeding or soil binders are used. • Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person will respond and take corrective action within 48 hours. The air district's phone number will also be visible to ensure compliance with applicable regulations.	Project construction contractor to implement control measures to reduce particulate matter emissions from construction activities.	Project Implementer / Construction Contractor	Implementing Agency	During ground-disturbing construction activities (all phases)
MM-AQ-2. Implement BAAQMD basic control measures to reduce construction-related exhaust emissions The project's construction contractor shall implement the following measures to reduce exhaust emissions (NOX and PM10) from construction equipment as proposed in the BAAQMD air quality guidelines (2017). • Minimize idling times either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure—13 California Code of Regulations [CCR] 2485). Clear signage will be provided for construction workers at all access points. • Maintain and properly tune construction equipment in accordance with manufacturer's specifications. All equipment will be checked by a certified visible emissions evaluator.	Project construction contractor to implement BAAQMD basic control measures to reduce exhaust emissions.	Project Implementer / Construction Contractor	Implementing Agency	During project construction (all phases)

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
MM-AQ-3. Implement BAAQMD additional control measures to control construction-related dust emissions In accordance with the BAAQMD's current air quality guidelines (2017), the project's construction contractor shall implement the following additional BAAQMD control measures to reduce particulate matter emissions from construction activities. • Water all exposed surfaces at a frequency adequate to maintain minimum soil moisture at 12%. Moisture content can be verified by lab samples or moisture probe. • Suspend all excavation, grading, and/or demolition activities when average wind speeds exceed 20 miles per hour. • Install windbreaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of construction. Windbreaks shall have at maximum 50% air porosity. • Plant vegetative ground cover (e.g., fast-germinating native grass seed) in disturbed areas as soon as possible and water appropriately until vegetation is established. • Limit the simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time. Phase activities to reduce the amount of disturbed surfaces at any one time. • Wash all trucks and equipment, including tires, prior to leaving the site. • Treat site accesses to a distance of 100 feet from the paved road with a 6- to 12-inch compacted layer of wood chips, mulch, or gravel. • Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than 1%.	Project construction contractor to implement BAAQMD basic control measures to reduce particulate matter emissions.	Project Implementer / Construction Contractor	Implementing Agency	During ground-disturbing construction activities (all phases)
MM-AQ-4. Implement BAAQMD additional control measures to reduce construction-related exhaust emissions The project implementer shall implement the following additional measures to reduce exhaust emissions (ROG, NOX, and PM10) from construction equipment as well as architectural coating off gassing, as proposed in the BAAQMD air quality guidelines (2017). • Minimize the idling time of diesel-powered construction equipment to 2 minutes. • Develop a plan that demonstrates that off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) will achieve a project-wide fleet-average 20% NOX reduction and 45% particulate matter reduction compared to the most recent ARB fleet average. Acceptable options for reducing emissions include the use of late-model engines, low-emission diesel products, alternative fuels, engine retrofit technology,	Project implementer to implement measures to reduce exhaust emissions from equipment as well as architectural coating off gassing.	Project Implementer / Construction Contractor	Implementing Agency	During project construction (all phases)

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
after-treatment products, add-on devices (such as particulate filters), and/or other options as such become available. • Use low–volatile organic compound (i.e., ROG) coatings that exceed local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings). • Require all construction equipment, diesel trucks, and generators to be equipped with best available control technology for emission reductions of ROG, NOX, and PM. • Require all contractors use equipment that meets ARB's most recent certification standard for off-road heavy-duty diesel engines.				
MM-AQ-5. Reduce construction emissions to ensure both construction-only and combined construction and operational emissions are below BAAQMD NO_X thresholds The project implementer shall ensure construction-only emissions and combined construction- and operations- related emissions do not exceed BAAQMD's NOX threshold of 54 pounds per day with the following action. • Require the usage of EPA-rated Tier 3 or higher rated construction equipment. In general, the following NOX reductions can be achieved when replacing Tier 2 equipment (fleet average) with higher rated engine tiers: o Tier 3: 38% NOX reduction o Tier 4 interim: 68% NOX reduction o Tier 4 final: 94% NOX reduction If the engine tier measures described above do not reduce construction-only or combined construction- and operations- related emissions to less than the threshold level, the project implementer shall coordinate with BAAQMD to purchase NOX credits at the current rate of $32,974.64 per ton, plus a 5% administrative fee. This measure will offset remaining NOX construction emissions to ensure construction-only and combined construction- and operations- related NOX emissions do not exceed BAAQMD thresholds.	Project implementer to ensure emission do not exceed BAAQMD's thresholds.	Project Implementer / Construction Contractor	Implementing Agency	During project construction (all phases)
MM-AQ-6. Use low-VOC coatings during construction The project implementer shall require all construction contractors to use low-volatile organic compound (VOC) coatings that have a VOC content of 10 grams per liter or less during construction. The project implementer shall submit evidence of the use of low-VOC coatings to BAAQMD prior to the start of construction.	Construction contractors to use low-volatile organic compound (VOC) coatings	Project Implementer / Construction Contractor	Implementing Agency	During project construction (all phases)

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
	and submit evidence of use.			
BIOLOGY				
MM-BIO-1. Install construction barrier fencing around sensitive natural communities in and adjacent to the construction area to protect sensitive biological resources to be avoided The project implementer or construction contractor shall install construction barrier fencing (including sediment fencing) to prevent contaminants and debris from entering the northern coastal salt marsh, and other biologically sensitive areas in and adjacent to the project area. Before construction begins, the project implementer shall retain a qualified biologist or resource specialist to work with the project engineer or construction contractor to identify the locations for the barrier fencing and shall mark those locations with stakes or flagging. The protected area shall be clearly identified as an environmentally sensitive area on the construction specifications. The fencing shall be in place before construction activities are initiated. The fence is primarily a visual deterrent and will not interference with kiteboarding activities. The fencing shall be maintained by the project implementer or construction contractor throughout the duration of the construction period. If the fencing is removed, damaged, or otherwise compromised during the construction period, construction activities shall cease until the fencing is replaced. In addition, the project implementer or construction contractor shall install ecological interpretation signage at locations identified by the biologist or resource specialist to discourage people from encroaching onto sensitive habitats.	Project implementer or construction contractor to install construction barrier fencing and signage.	Project Implementer / Construction Contractor	Implementing Agency	Before construction activities are initiated (Phase 2 and Phase 3)
MM-BIO-2. Prepare environmental awareness program and conduct environmental awareness training for construction employees Prior to construction, the project implementer shall retain a qualified biologist or resource specialist to develop an environmental awareness program and conduct environmental awareness training for construction employees. The program shall explain the importance of onsite biological resources, including sensitive natural communities, any protected trees to be retained, special-status plant populations, and special-status wildlife habitats. The program shall address how to best avoid take of federally and/or state-listed species. The program shall include invasive plant identification and the importance of controlling and preventing the spread of invasive plant infestations. The environmental awareness program shall be provided to all construction personnel to inform them on the life history of special-status species in or adjacent to the project area, the need to avoid impacts on sensitive biological resources, any terms and conditions required by	Project implementer to retain a qualified biologist to develop and conduct environmental awareness training.	Project Implementer	Implementing Agency	Before construction activities are initiated (Phase 2 and Phase 3)

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
state and federal agencies, and the penalties for not complying with biological mitigation requirements. If new construction personnel are added to the project, the contractor's superintendent shall ensure that the personnel receive the mandatory training before starting work. An environmental awareness handout that describes and illustrates sensitive resources to be avoided during project construction and identifies all relevant permit conditions shall be provided to each person.				
MM-BIO-3. Retain a biological monitor to conduct construction monitoring in and adjacent to all environmentally sensitive areas The project implementer shall retain a qualified biologist to conduct construction monitoring in and adjacent to all identified environmentally sensitive areas. The frequency of monitoring shall be determined by the biological monitor, ranging from daily to weekly, depending on the biological resource and the construction activities. Construction monitoring duties shall include the following actions: • Inspect the staked and flagged perimeters of the construction area and staging areas adjacent to identified environmentally sensitive areas, and notify the construction contractor of any corrections needed. • Inspect the construction barrier fencing (including sediment fencing) and notify the construction contractor of any necessary maintenance or repairs. • Inspect trees and crevices for the presence of roosting bats and, if found, coordinate with CDFW to determine best exclusion practices. Implement exclusion measures and confirm bat absence prior to removal of structure or tree supporting the bat roost. • Assist the construction crew as needed to comply with all project implementation restrictions and guidelines.	Project implementer to retain a qualified biologist to conduct construction monitoring in and adjacent to environmentally sensitive areas.	Project Implementer	Implementing Agency	Before construction activities are initiated (all phases)
MM-BIO-4. Protect water quality and prevent erosion and sedimentation in drainages, waterways, and wetlands A stormwater pollution prevention plan shall be implemented as part of the NPDES General Construction Activity Storm Water Permit to minimize the potential for sediments or contaminants to be discharged into San Francisco Bay and the potential for adverse impacts on listed species, critical habitat, and EFH. A toxic materials control and spill response plan shall be implemented to regulate the use of petroleum-based products (fuel and lubricants) and other potentially toxic materials associated with project construction. The project implementer shall review and approve the contractors' toxic materials spill prevention control and countermeasure plan before allowing construction to begin. The	Contractor to prepare a stormwater pollution prevention plan and toxic materials control and spill response plan. Project implementer	Project Implementer / Construction Contractor	Implementing Agency	Before construction activities are initiated (all phases)

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
project implementer shall routinely inspect the construction site to verify that best management practices specified in the plan are properly implemented and maintained. The project implementer shall notify the contractor immediately if there is a noncompliance issue and shall require compliance. The project implementer also shall obtain a 401 Water Quality Certification from the San Francisco Bay RWQCB, which may contain additional best management practices and water quality measures to ensure the protection of water quality.	shall review and approve plans and routinely inspect the construction site to verify implementation. Project Implementer will obtain 401 Certification.			
MM-BIO-5. Compensate for loss of tidal salt marsh habitat The project implementer shall restore 2.2 acres of tidal wetlands in the Radio Beach area with the goal to extend the Emeryville Crescent marsh vegetation and upland coastal scrub vegetation in the disturbed areas of Radio Beach not proposed for the boardwalk and not consisting of sandy beach. The proposed onsite restoration shall include removal of nonnative invasive plants and planting of marsh species, including pickleweed and Pacific cordgrass. The minimum area of new marsh planting shall be 0.02 acres to provide at least a 2:1 replacement for the tidal marsh lost due to the installation of the new boardwalk. No offsite compensation is proposed for impacts to tidal marsh.	Project implementer to restore 2.2 acres of tidal wetlands in the Radio Beach area.	Project Implementer	Implementing Agency	Prior to completion of Radio Beach portion of Phase 3 construction
MM-BIO-6. Compensate for loss of seasonal wetland habitat Because tidal wetland restoration shall be conducted at Radio Beach, the project implementer shall compensate for the loss of 0.01 acre of seasonal wetland by adding an additional 0.02-acre of tidal wetland restoration. As noted above, to compensate for the loss of less than 0.01 acre of tidal wetland, a minimum of 0.02 acre of tidal wetland would be restored at Radio Beach. The additional 0.02 acre of proposed mitigation would bring the minimum total of tidal wetland restoration to 0.04 acre.	Project implementer shall add an additional 0.02-acre of tidal wetland restoration.	Project Implementer	Implementing Agency	Prior to completion of Radio Beach portion of Phase 3 construction
MM-BIO-7. Compensate for loss of shallow bay habitat The project implementer shall comply with the EPA wetland policy of No Net Loss by purchasing shallow bay (estuarine) mitigation credits from a USACE Approved Mitigation Bank for unavoidable permanent impacts on shallow bay (estuarine) waters of the United States. Compensation shall be provided on a minimum 1:1 ratio for impact of permanent fill.	Project implementer shall purchase shallow bay mitigation	Project Implementer	Implementing Agency	Prior to completion of Phase 2 and Phase 3 construction

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
Based on present estimates, approximately 0.24 acre will require compensation. The project is within the service area for the San Francisco Bay Wetland Mitigation Bank, which is approved for mitigation of tidal wetlands and other waters. Impacts from shading could also be compensated through removal of existing piling/unused docks in the Bay at a minimum 1:1 ratio. Based on present estimates, approximately 0.37 acre of shade removal would be obtained. One approach could be to contribute funding to an ongoing project such as the California State Coastal Conservancy's San Francisco Bay Creosote Piling Removal and Pacific Herring Restoration Project, which would remove creosote-treated pilings and reestablish subtidal habitat through restoration methods to establish eelgrass and oyster beds and associated substrate. Other restoration projects that would remove overwater fill/shading could also be used.	credits from a USACE Approved Mitigation Bank.			
MM-BIO-8. Compensate for loss of eelgrass habitat The project implementer shall provide compensation for the areal extent of eelgrass directly displaced by piles installed in eelgrass as well as the areal extent of eelgrass predicted to be shaded by the path. The project implementer shall contribute funding to eelgrass mitigation efforts on a per-acre basis, either directly to NMFS to be used for the same research and restoration purposes as the funding previously provided to NMFS as compensation for the Bay Bridge's eelgrass effects, or to the Coastal Conservancy's Creosote Piling Removal and Pacific Herring Restoration Project, which will also include eelgrass restoration.	Project implementer to contribute funding to eelgrass mitigation efforts.	Project Implementer	Implementing Agency	Prior to completion of Phase 2 and the Radio Beach portion of Phase 3 construction
MM-BIO-9. Prior to construction of Phase 3 of park development, conduct plant surveys for beach layia, blues coast gila, and California seablite between June 1 and September 1 Prior to construction of Phase 3 of park development, the project implementer shall retain a qualified biologist to conduct plant surveys for three special status plant species - beach layia, blue coast gilia, and California seablite - between June 1 and September 1 (during the blooming period (between June 1 and September 1). If any of these species are detected during surveys, the project implementer shall consult with USFWS and CDFW to determine the appropriate compensatory mitigation to reduce potential impacts that could result from construction of the project. If special-status plant species are identified during construction, the monitor shall coordinate with the contractor to implement appropriate protective measures such as installing additional fencing to avoid impacts to them.	Project implementer to retain a qualified biologist to conduct plant surveys.	Project Implementer	Implementing Agency	Prior to construction of Radio Beach portion of Phase 3

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
MM-BIO-10. Remove all vegetation by hand and install construction barrier fencing around sensitive natural communities in and adjacent to the construction area for the new path in the Radio Beach area Before construction activities begin on the new path in the Radio Beach area, the project implementer shall remove all vegetation by hand in the tidal salt marsh area identified by a qualified biologist or resource specialist, including areas that shall be used for construction access. Vegetation clearing shall be performed methodically from San Francisco Bay toward the upland area. Once vegetation within the exclusion zone areas is cleared and the areas are graded, exclusion fencing shall be installed around these areas to prevent potential reentry of protected wildlife (the salt marsh harvest mouse, Ridgway's rail, California black rail) into these areas. The exclusion fencing shall be a minimum of 2 feet tall with the bottom 4 inches of the fence buried. A USFWS-approved biologist shall monitor the vegetation removal activities to ensure that no adjoining habitat is disturbed and monitor the installation of exclusion fencing.	Project implementer to remove all biologist-identified vegetation by hand in the tidal salt marsh area and install exclusion fencing.	Project Implementer	Implementing Agency	Prior to construction of new path in Radio Beach area (Phase 3)
MM-BIO-11. Conduct protocol-level surveys for Ridgway's rail and California black rail in the adjacent tidal marsh to determine presence or absence of this species A USFWS-approved biologist shall conduct protocol-level surveys for Ridgway's rail and California black rail in the 700-foot impact area in the adjacent tidal marsh habitat to determine presence or absence of these species. Surveys shall be conducted during the rail-breeding season (January 15 to September 1) in accordance with the USFWS and CDFW protocols. Survey results shall be valid for 1 year. If rails are detected during surveys, results shall be submitted to USFWS and CDFW to coordinate the appropriate environmental commitments (e.g., seasonal closures of Radio Beach). Construction activities shall not occur until the qualified biologist or resource monitor confirms all required measures are implemented.	Project implementer to retain a USFWS-approved biologist to conduct protocol-level surveys for rails.	Project Implementer	Implementing Agency	Prior to construction of Radio Beach portion of Phase 3.
MM-BIO-12. Establish 700-foot construction buffer around occupied, suitable Ridgway's rail and California black rail habitat in the Emeryville Crescent if construction occurs during the rail breeding season (January 15 to September 1) If rails are detected during protocol-level surveys and construction in the Radio Beach area is scheduled to occur during the rail breeding season, the USFWS-approved biologist, in coordination with USFWS and CDFW, shall identify the location where environmentally sensitive exclusion fencing shall be installed to establish a 700-foot construction buffer around Ridgway's rail and California black rail detections. The biological monitor shall work	Project implementer to retain a USFWS-approved biologist to establish construction buffer and	Project Implementer	Implementing Agency	Before construction activities are initiated for Radio Beach portion of Phase 3, if rails are

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
with the contractor to ensure the construction fencing demarking where no construction activities can occur is at least 700 feet from occupied, suitable rail habitat.	exclusion fencing if rails are detected.			detected during protocol-level surveys.
MM-BIO-13. Install fencing around tidal marsh habitat east of the project area The project implementer shall install protective fencing, of a design approved by USFWS and CDFW, around the offsite tidal marsh habitat east of Radio Beach to prevent all ingress. The fence shall extend from the access road underpass under I-80 westward to Radio Beach on the north side of the road and then placed on the east side of the road leading to the radio antennae.	Project implementer to install protective fencing around offsite tidal marsh habitat.	Project Implementer	Implementing Agency	Before Phase 3 construction activities begin in the Radio Beach area.
MM-BIO-14. Manage the onsite northern foredune and tidal marsh habitat as a buffer between Radio Beach and offsite tidal marsh habitat The project implementer shall install a wooden beam and rail fence around the onsite northern foredune and tidal marsh habitat and restoration area at Radio Beach to discourage encroachment into these habitats. The fence shall be limited to no more than 4 feet at Radio Beach and shall not use chain or mesh style fencing in order to reduce the potential for any interference with kiteboarding activities. The style for the fence has not been determined, but could be a wooden beam and post style fence similar to what is commonly used by EBRPD at many of their park units. The project implementer will coordinate with current site users, including kiteboarders and SFBCDC, during fencing design to take site user input into final design. The northern foredune and tidal marsh areas at Radio Beach shall be restored and the habitat protected. Signage prohibiting entry (except on established boardwalks or trails) and environmental education shall be provided at Radio Beach to inform the public of the environmental sensitivity of the sandy beach area (for shorebirds), the restoration area, and the adjacent offsite tidal marsh habitat.	Project implementer to install fencing around northern foredune and tidal marsh habitat and coordinate with current site users for input on final design.	Project Implementer	Implementing Agency	Before Phase 3 construction activities begin in the Radio Beach area.
MM-BIO-15. Close Radio Beach to entry at night The project implementer shall install a locked gate east of Radio Beach and east of the access road to the radio towers that shall allow Radio Beach to be closed to public entry at night in order to avoid disturbance to wildlife using the site and wildlife using the adjacent tidal marsh habitat. The path to Radio Beach from Key Point shall also be closed at night. The project	Project implementer to install a locked gate east of Radio Beach and coordinate	Project Implementer	Implementing Agency	Prior to completion of Phase 3 construction activities in

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
implementer shall coordinate with the Port of Oakland and the lessees of the radio towers to ensure access is maintained for these entities.	with Port of Oakland and lessees of radio towers to maintain access.			the Radio Beach area.
MM-BIO-16. Prohibit dogs in Radio Beach area The project implementer shall not allow dogs on the path from Key Point leading to Radio Beach just to the point where the riprap ends (i.e., just west of "little" Radio Beach). Dogs shall be prohibited from using the entire Radio Beach area.	Project implementer to prohibit dogs from using the Radio Beach area.	Project Implementer	Implementing Agency	During operation of Radio Beach portion of Phase 3
MM-BIO-17. Prohibit installation of lighting, trees, or other structures potentially suitable for raptor perching on the north side of I-80 within designated park areas The project implementer shall not allow elevated structures, such as lighting poles, or trees that can be used as raptor perches to be installed in Gateway Park north of I-80. This measure does not apply to fencing or rails along the path to Radio Beach or as part of onsite boardwalks or required roadway signage. This measure does not apply to the areas currently used for radio towers. If elevated structures necessary to the park function and purpose, such as an environment kiosk, are determined necessary for habitat protection, then raptor perch deterrent measure (e.g., spikes) shall be placed on project components exceeding 3 feet tall adjacent to marsh habitat.	Project implementer to prohibit elevated structures that can be used as raptor perches in Gateway Park north of I-80.	Project Implementer	Implementing Agency	Project Design, Prior to construction of Radio Beach portion of Phase 3.
MM-BIO-18. Avoid construction during the migratory bird-nesting season (January 31 through September 15) or conduct preconstruction surveys for nesting birds The project implementer shall ensure construction activities occur September 16 to January 30 to avoid construction during the nesting season (generally, February 1 through September 15 for most birds). Vegetation removal in particular shall occur between October 1 and January 30. Beginning construction prior to the nesting season shall establish a level of noise disturbance that shall dissuade noise-sensitive raptors and other birds from attempting to nest within or near the study area. If construction activities (including vegetation removal) cannot be avoided during the nesting season, the project implementer shall retain a qualified wildlife biologist with knowledge of the relevant species to conduct nesting surveys before the start of construction. Surveys shall	Project implementer to ensure construction activities are timed to avoid nesting season or, if activities cannot be avoided during nesting season, retain a	Project Implementer	Implementing Agency	During project construction (all phases)

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
be conducted for migratory birds, including raptors. Surveys shall include a search of all trees, shrubs, and tidal salt marsh areas that provide suitable nesting habitat in the project area. In addition, a 500-foot buffer around the project area shall be surveyed for nesting raptors. Surveys should occur during the height of the nesting season (March 1 to June 1) with one survey occurring in each of 2 consecutive months within this peak period and the final survey occurring within 1 week of the start of construction. If no active nests are detected during these surveys, no additional measures are required. The biological monitor shall check structures in the project area daily for caches of dead prey left by barn owls, remove any such caches, and block access to cache locations with exclusion measures.	qualified wildlife biologist to construct surveys.			
MM-BIO-19. Install a no-disturbance buffer around detected active nests If an active nest is found during the preconstruction surveys, the biological monitor shall coordinate with the contractor to establish a no-disturbance buffer around the site. This buffer shall be maintained until the end of the breeding season (September 15 or until after a qualified wildlife biologist determines that the young have fledged and moved out of the project area). The extent of these buffers shall be determined by the biologist in coordination with USFWS and CDFW and shall depend on the level of noise or construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. Suitable buffer distances may vary between species.	Biological monitor to coordinate with contractor to establish a no-disturbance buffer is active nest is discovered.	Project Implementer	Implementing Agency	During project construction (all phases)
MM-BIO-20. Implement pile-driving noise reduction measures to minimize impacts on special-status fish species The project implementer shall ensure the following noise reduction measures are implemented during construction activities involving pile driving. • Conduct all pile driving between June 1 and November 30 to avoid the primary steelhead migration season (December through June) in the project area. Because steelhead adults and juveniles could begin their migration earlier than December 1, the project implementer shall conduct all pile driving activities as early as possible during the June 1 to November 30 window. • Vibrate all piles to the maximum depth feasible before using an impact hammer. During impact driving, the contractor shall limit the number of strikes per day to the minimum necessary to complete the work. • Use the smallest pile driver and minimum force necessary to complete the work.	Project implementer to ensure noise reduction measures are implemented during pile driving.	Project Implementer	Implementing Agency	During construction activities requiring pile driving (Phase 2 and Radio Beach portion of Phase 3)

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
• Use a bubble ring or similar device to minimize the extent to which the interim peak and cumulative sound exposure (SEL) thresholds are exceeded. • Avoid all pile-driving activity at night.				
MM-BIO-21. Reduce pile-driving noise to protect marine mammals The project implementer shall ensure the following noise reduction measures are implemented during construction activities involving pile driving. • Comply with equipment noise standards of EPA and ensure that all construction equipment has noise control devices no less effective than those provided on the original equipment. • Conduct regular briefings between construction supervisors and crews, marine mammal monitoring team, and acoustical monitoring team to explain responsibilities, communication procedures, marine mammal monitoring protocol, and operational procedures. • For all in-water permanent pile driving, establish marine mammal safety zones corresponding to the injury threshold contours around each of the pile-driving sites before pile driving commences. • If marine mammals are visually sighted within the safety zone(s) prior to start of pile-driving, the resident engineer (or other authorized individual) shall delay pile driving of the segment until the marine mammals have moved beyond the safety zone. Verification may be conducted either through sighting by a qualified observer or by waiting until enough time has elapsed without a sighting (at least 15 minutes for pinnipeds and 30 minutes for cetaceans) to assume the animal has moved beyond the safety zone. • If marine mammals are sighted within the safety zone after pile driving has begun, a qualified marine mammal observer shall record the species, numbers, and behaviors of the animals and report to NMFS within 48 hours of the sighting. • The contractors shall "soft-start" impact and vibratory pile driving operations.	Project implementer to ensure noise reduction measures are implemented during pile driving.	Project Implementer	Implementing Agency	During construction activities requiring pile driving (Phase 2 and Radio Beach portion of Phase 3)
MM-BIO-22. Monitor and report marine mammal sightings before, during, and after pile driving The project implementer shall ensure the following monitoring and reporting measures are implemented.	Project implementer to ensure monitoring and reporting measures	Project Implementer	Implementing Agency	During construction activities requiring pile driving (Phase 2 and

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
• For all in-water permanent pile-driving one three-person observer team must visually monitor each pile-driving site. When multiple sites are in operation, more than one observer team must be utilized from boats. o Pre-activity monitoring. At least 30 minutes prior to the start of all in-water permanent pile-driving segments, marine mammal monitors must conduct observations on the number, types, locations, and behaviors of marine mammals in the designated safety zones and buffer zones, as well as other areas near pile driving sites. If the time between pile-segment driving is less than 30 minutes, a new 30-minute survey is unnecessary provided marine mammal monitors continue observations during the interruption. If pile driving ceases for 30 minutes or more and a marine mammal is sighted within the designated safety zones prior to the commencement of pile-driving, the observer must notify the resident engineer (or other authorized individual) immediately. o Monitoring during activity. During all in-water permanent pile-driving, marine mammal monitors shall conduct and record observations on marine mammals near the pile-driving sites and pay particular attention to designated safety zones. o Post-activity monitoring. For a minimum of 30 minutes after in-water permanent pile-driving stops, marine mammal monitors shall conduct observations of the project area and record information on the number, types, locations, and behavior of marine mammals and pay attention to designated safety zones. o Monitoring on Yerba Buena Island haul-out. The holder of this authorization shall coordinate with the Richmond Bridge harbor seal survey team to collect observational data from Yerba Buena Island during in-water pile-driving activity. o Monitoring under low light condition. In late afternoon and/or early evening when light condition is low, marine mammal monitors shall use infrared scopes to conduct observation of the project area. o Data on all observations shall include the following information: date and time that pile driving or removal starts and ends; location of sighting; species; number of individuals; number of calves present; duration of sighting; behavior of marine animals sighted; direction of travel; distance from pile driving/removal; environmental information associated with sighting event including Beaufort sea state, wave height, tide state, water	regarding marine mammal sightings before, during, and after pile driving are implemented and provide a monthly status report to NMFS.			Radio Beach portion of Phase 3)

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
currents, wind direction, visibility, glare, percentage of glare, percentage of cloud cover; when in relation to pile driving or removal activities the sighting occurred (before, "soft-start", during, or after the pile driving or removal); and other human activity in the area. • The project implementer shall provide a monthly status report to NMFS on the appropriate reporting items, unless other arrangements for monitoring reports are agreed to in writing. A report on all activities must be submitted to NMFS within 90 days after completion of the activities. This report must provide the dates and types of activities and the results of the visual monitoring program, including all items noted above.				
MM-BIO-23. Implement measures to avoid the introduction and spread of invasive plants The project implementer shall implement the following measures to ensure the project complies with Executive Order 13112: Prevention and Control of Invasive Species. • Retain a qualified biologist to identify invasive plant species in the construction work area, remove all invasive plant material, and dispose of at a certified landfill. • Minimize surface disturbance within the construction work area to the greatest extent possible. • Seed all the disturbed areas with certified weed-free native mixes and mulch with certified weed-free mulch (rice straw may be used in upland areas). • Use native, noninvasive species in erosion control plantings to stabilize site conditions and prevent invasive species from colonizing.	Project implementer to implement measures to avoid the introduction and spread of invasive plants.	Project Implementer	Implementing Agency	During project construction (all phases)
MM-BIO-24. Implement measures to avoid the spread of invasive plants The project implementer shall implement the following measures to avoid the introduction and spread of invasive plants during project operation. • Retain a qualified biologist to survey public access areas (around walkways, benches, buildings, trashcans, restrooms, etc.) for invasive plant species on an annual basis. • If invasive plant species are identified, remove all invasive plant material and dispose of at a certified landfill. Annual surveys may cease when invasive plant species are not observed in public access areas for 3 consecutive years.	Project implementer to implement measures to avoid the introduction and spread of invasive plants during operation.	Project Implementer	Implementing Agency	For three consecutive years after construction of each phase of the project

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
CULTURAL RESOURCES				
MM-CUL-1. Stop work if cultural resources are encountered during ground-disturbing activities The project implementer shall ensure the construction specifications include a stop work order if prehistoric or historic-period cultural materials are unearthed during ground-disturbing activities. All work within 100 feet of the find shall be stopped until a qualified archaeologist can assess the significance of the find. If the find is determined to be potentially significant, the archaeologist, in consultation with the Native American representative (if applicable), shall develop a treatment plan that could include site avoidance, capping, or data recovery. If a find is determined to be potentially significant, necessitating the development of an Archaeological Research Design and Treatment Plan (ARDTP), one shall be prepared by the archaeologist and submitted to the project implementer. Once approved, a data-recovery investigation and/or other treatment, consistent with the ARDTP, shall be conducted by the archaeologist. Components of the ARDTP may include geoarchaeological studies, Phase I identification, health and safety plan, treatment for unanticipated discoveries, data recovery, laboratory analysis protocols, treatment of human remains, archaeological monitoring, reporting, curation, public outreach, and interpretation.	Project implementer to ensure stop work order included in construction specifications if prehistoric or historic-period cultural materials are unearthed.	Project Implementer / Construction Contractor	Implementing Agency	During ground disturbing construction activities (all phases)
MM-CUL-2. Stop work if human remains are encountered during ground-disturbing activities The project implementer shall ensure the construction specifications include a stop work order if human remains are discovered during construction or demolition. There shall be no further excavation or disturbance of the site within a 50-foot radius of the location of such discovery, or any nearby area reasonably suspected to overlie adjacent remains. The Alameda County Coroner shall be notified, pursuant to section 5097.98 of the California Public Resources Code and section 7050.5 of the California Health and Safety Code, and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, he shall notify the Native American Heritage Commission, which shall attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this state law, then the landowner shall re-inter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance.	Project implementer to ensure stop work order included in construction specifications if human remains are discovered. .	Project Implementer / Construction Contractor	Implementing Agency	During ground disturbing construction activities (all phases).

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
MM-CUL-3. Engage a qualified architectural historian to guide design alterations to conform to the Secretary of the Interior's Standards for rehabilitation During design development, the project implementer shall obtain a qualified architectural historian to review the design of the Key Pier Substation and the Bay Bridge Oakland Substation and provide design feedback to ensure that the design conforms to the Secretary of the Interior's Standards. The architectural historian shall make recommendations for the treatment of historic building materials, finishes, and all exterior and interior character-defining features. These recommendations shall be documented by the qualified architectural historian and included in a memorandum that further details the project's conformance with the Secretary of the Interior's Standards, including specific information on the treatment of all character-defining features. The final project design shall conform to the Secretary of the Interior's Standards before the project implementer obtains alteration permits.	Project implementer shall obtain a qualified architectural historian to review designs and make recommendations for building treatments to be included in memorandum.	Project Implementer	Implementing Agency	Before obtaining alteration permits for Phase 2.
GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES				
MM-GEO-1. Establish and follow procedures in case of accidental discovery of a paleontological resource Before the start of any drilling or pile-driving activities, the project implementer shall retain a qualified paleontologist, as defined by SVP, who is experienced in teaching generalists. The qualified paleontologist shall train all construction personnel who are involved with earthmoving activities, including the site superintendent, regarding the possibility of encountering fossils, the appearance and types of fossils that are likely to be seen during construction, and proper notification procedures should fossils be encountered. Procedures to be conveyed to workers include halting construction within 50 feet of any potential fossil find and notifying a qualified paleontologist, who shall evaluate the significance. If paleontological resources are discovered during earthmoving activities, the construction crew shall immediately cease work near the find and notify the project implementer. Construction work in the affected areas shall remain stopped or be diverted to allow recovery of fossil remains in a timely manner. The project implementer shall retain a qualified paleontologist to evaluate the resource and prepare a recovery plan in accordance with SVP guidelines (Society for Vertebrate Paleontology 2010). The recovery plan may include a field survey, construction monitoring, sampling, data recovery procedures, museum storage coordination for any specimen recovered, and a report of findings. Recommendations in the recovery plan that are determined by the project implementer to be necessary and feasible	Project implementer shall retain a qualified paleontologist to train construction personnel on procedures when encountering fossils, including stop work.	Project Implementer / Construction Contractor	Implementing Agency	Prior to start of drilling or pile-driving activities (Phase 2 and Radio Beach portion of Phase 3).

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
shall be implemented before construction activities can resume at the site where the paleontological resources were discovered. The project implementer shall be responsible for ensuring that the monitor's recommendations regarding treatment and reporting are implemented.				
GREENHOUSE GASES				
MM-GHG-1. Implement Operational GHG emission reduction measures In accordance with the Oakland Energy and Climate Action Plan, the project implementer shall complete the following. • Comply with EBMUD Water-Efficiency Standards. The project implementer shall comply with EBMUD Water Efficient Landscaping requirements for compliance with Section 31 water efficiency in landscape design. • Improve Energy Performance of New Buildings. The project implementer shall comply with the Oakland Civic Green Building Ordinance to increase energy efficiency for new facilities. • Comply with Oakland C&D Recycling Ordinance. The project implementer shall comply with the Oakland C & D ordinance to capture greater amounts of materials for reuse, recycling and composting. • Promote Waste Reduction. The project implementer shall provide information regarding waste reduction and recycling as part of park information. The project implementer shall require waste reduction and recycling plans for special events and shall also abide by City of Oakland mandatory recycling and/or bans on the use, sale, or disposal of certain product types. The project implementer shall also comply with Bay Friendly Landscaping, a program of StopWaste.org. This program defines prescriptive measures for the design, construction, and maintenance of landscapes with the goals of reducing green waste, conserving water, and reducing pollution in local watersheds. • Explore small-scale solar for on-site buildings. In order to power on-site park buildings, the project implementer shall explore the feasibility of on-site solar installations. • Integrate multi-modal access to the park. In order to reduce vehicle trips and emissions, the project implementer shall ensure multi-modal access (including transit, bike, and pedestrian) to the park for routine operations. The project implementer shall also require special event proponents to develop and implement a	Project Implementer to ensure compliance with Oakland Energy and Climate Action Plan measures.	Project Implementer	Implementing Agency	Before construction activities are initiated (all phases)

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
trip reduction plan for their events to encourage access via transit, carpooling, bicycle, and walking. • Urban Heat Island Controls. Cool surface treatments will be considered for new parking facilities.				
HAZARDOUS MATERIALS				
MM-HAZ-1. Prepare a limited Phase II Environmental Site Assessment for the terrestrial portions of the project within the boundary of the former Oakland Army Base and, if appropriate, a site mitigation plan The project implementer shall complete a limited Phase II ESA to assess potential contaminant impacts within the terrestrial portions of the Gateway Park development within the boundary of the former Oakland Army Base (Phase 3). The Phase II ESA shall include a detailed review of historic chemical data available for the former Oakland Army Base as well as sampling and chemical analyses of soil at the Gateway Park development, particularly where soil handling activities are likely to occur. The Phase II ESA shall also consider whether groundwater and sediment sampling are appropriate. Samples shall be tested for some or all the contaminants of concern identified above, and results shall be compared to appropriate Environmental Screening Levels (ESLs) or other criteria with consideration of future park construction/maintenance worker and passive recreational users. If the Phase II Environmental Site Assessment indicates that soil or groundwater samples have hazardous substances present, the project implementer shall engage a qualified person to develop a Site Mitigation Plan. The Site Mitigation Plan shall describe handling, management, and mitigation of the contamination. The Plan shall be submitted to Alameda County Department of Environmental Health for approval. The Plan shall be implemented prior to commencement of construction.	Project Implementer to complete a limited Phase II ESA. If Phase II ESA indicates the presence of hazardous substances, the Project Implementer will engage qualified person to develop a Site Mitigation Plan.	Project Implementer	Implementing Agency	Before Phase 3 construction activities are initiated.
MM-HAZ-2. Install warning signage that prohibits patrons from swimming or standing in the water on the south side of the park in the area of contaminated sediments The project implementer shall install warning signage in the park indicating that swimming and standing in the water on the south side of the park is dangerous and prohibited due to the potential for exposure to contaminated marine sediments. The project implementer shall also include the same warnings on a page in the publicly accessible website.	Project implementer to install warning signage regarding contaminated sediments.	Project Implementer	Implementing Agency	Prior to completion of Phase 3 construction .

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
HYDROLOGY AND WATER QUALITY				
MM-HY-1. Implement a toxic materials control and spill response plan A toxic materials control and spill response plan shall be implemented to regulate the use of petroleum-based products (fuel and lubricants) and other potentially toxic materials associated with project construction. The project implementer shall review and approve the contractors' toxic materials spill prevention control and countermeasure plan before allowing construction to begin. The project implementer shall routinely inspect the construction site to verity that BMPs specified in the plan are properly implemented and maintained. The project implementer shall notify the contractor immediately if there is a noncompliance issue and shall require compliance.	Contractor to develop toxic materials spill prevention control and counter measure plan. Project Implementer to review and approve plan.	Project Implementer / Construction Contractor	Implementing Agency	During project construction (all phases)
MM-HY-2. Implement construction dewatering treatment if necessary The project implementer shall implement dewatering treatment if groundwater is encountered during excavation activities, if dewatering is necessary to complete the project, or if the dewatered water is discharged to any storm drain or surface water body. Because groundwater could be contaminated with VOCs or fuel products at the project area, the project implementer shall comply with the San Francisco Bay RWQCB VOC and Fuel General Permit (Order R2-2012-0012). If dewatering activities require discharges to the storm drain system or other water bodies, the water shall be pumped to a tank and tested for water quality. Grab samples shall be sent to a certified laboratory for analysis. If the water does not meet water quality standards, it will either be treated to meet all applicable water quality standards (Table 3.8-1 and Table 3.8-2) or hauled off site for treatment and disposal at an appropriate waste treatment facility permitted to receive such water. Water treatment methods that represent the best available technology that is economically achievable shall be selected to achieve maximum removal of contaminants. Methods may include the retention of dewatering effluent until particulate matter has settled before it is discharged, the use of infiltration areas, filtration, or other means. The contractor shall routinely inspect the construction area to verify that the water quality control measures are properly implemented and maintained, conduct visual observations of the water (i.e., check for odors, discoloration, or an oily sheen on groundwater), and perform other sampling and reporting activities prior to discharge. The project implementer shall submit the final selection of water quality control measures to the San Francisco Bay RWQCB for approval prior to construction. If the results from the	Project implementer to implement appropriate dewatering treatment activities.	Project Implementer	Implementing Agency	During project construction (all phases where groundwater is encountered, dewatering is necessary, or dewatered water is discharged)

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
groundwater laboratory do not meet water quality standards and the identified water treatment measures cannot ensure meeting standards for receiving water quality, then the water shall be hauled off site instead for treatment and disposal at an appropriate waste treatment facility permitted to receive such water.				
MM-HY-3. Implement drainage treatment and gross solids removal devices if necessary The project implementer shall implement drainage treatment and gross solids removal devices. Additional retention basins (biofiltration swales) shall be constructed at the west end in the Key Point area to treat stormwater runoff from the project features. The proposed types of treatment BMPs for the project site are biofiltration strips and biofiltration swales (WRECO 2014a). The biofiltration swales would be integrated as part of the park landscaping and would include a layer of imported biofiltration soil. If feasible, an underdrain system shall be included, based on the existing and proposed drainage facilities and site constraints. In addition, Austin vault sand filters and detention devices shall be considered. As required by the City of Oakland and Caltrans' Statewide Permit and the Construction General Permit, measures to reduce pollutant loading shall be implemented to the maximum extent practicable. Permanent control measures located within Caltrans' right-of-way shall reduce pollutants in the stormwater runoff from the roadway, and thus prevent pollutants from entering the waterways. These measures shall be incorporated into the final engineering design or landscape design of the project once more site-specific geotechnical information becomes available during the design phase of the project.	Project implementer to implement drainage treatment and gross solids removal devices.	Project Implementer	Implementing Agency	Prior to construction (all phases).
LAND USE AND PLANNING				
MM-LU-1. Install warning signage at the Port Playground kayak launch and include warnings on a publicly accessible website about potential conflicts between recreational kayak use and Port of Oakland uses The project implementer shall install warning signage at the Port Playground kayak launch indicating potential dangers of recreational kayaking in water shared with vessels that also use the Port of Oakland. The project implementer shall also include the same warnings on a page in the publicly accessible website. Warning signage shall comply with ANSI Z535.4 and ISO 3864-2 standards.	Project implementer to install warning signage at Port Playground kayak launch and on website.	Project implementer	Implementing Agency	Prior to commencement of operation of Phase 3.

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
PUBLIC SERVICES				
MM-PS-1. Provide security staff during special events During special events, the project implementer shall ensure that event security-staff are hired to provide additional security during the special event.	Project implementer to ensure security-staff at special events.	Project Implementer	Implementing Agency	During Special Events (Phase 1)
TRANSPORTATION				
MM-TRA-1. Prepare and implement a construction traffic management plan The project implementer and construction contractor shall develop a construction management plan for review and approval by the City of Oakland prior to issuance of any permits. The plan shall include the following measures and requirements to reduce traffic congestion during construction. • Provide a set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes. • Identify haul routes for movement of construction vehicles that would minimize impacts on motor vehicle, bicycle, and pedestrian traffic, circulation, and safety and, specifically, to minimize impacts to the greatest extent possible on streets in the project area. Haul route approval shall be required from the appropriate agencies (e.g., City of Oakland). • Provide for notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures would occur. • Maintain emergency service provider access throughout construction. • Provide for monitoring surface streets used for haul routes so that any damage and debris attributable to the haul trucks can be identified and corrected by the project implementer.	Project implementer and construction contractor to develop construction traffic management plan.	Project Implementer / Construction Contractor	Implementing Agency	Before construction activities are initiated (all phases)
MM-TRA-2. Upgrade traffic signal equipment at the 7th Street/Maritime Street intersection The project implementer shall coordinate with the City of Oakland and Port of Oakland to upgrade the traffic signal equipment at the intersections to provide video detection for vehicles and bicycles. This would allow for better allocation of the green signal time to	Project implementer to periodically conduct traffic counts of	Project Implementer	Implementing Agency	Prior to the generation of approximately 136

<table>
<tr><th>Mitigation Measure</th><th>Action</th><th>Implementing Party</th><th>Monitoring Party</th><th>Timing</th></tr>
<tr><td>movements, improving the LOS to D for vehicles during the weekday PM and to LOS C during the Saturday afternoon peak hour, as shown in Table 3.12-7.

Table Error! No text of specified style in document.-1. Existing with Project with Mitigation Peak Hour Intersection Level of Service
<table>
<tr><th colspan="2" rowspan="2">Intersection</th><th rowspan="2">Peak Hour</th><th colspan="2">Existing Conditions</th><th colspan="2">Existing With Project</th><th colspan="2">Existing With Project With Mitigation</th></tr>
<tr><th>Delay[a]</th><th>LOS[b]</th><th>Delay[a]</th><th>LOS</th><th>Delay[a]</th><th>LOS</th></tr>
<tr><td>9</td><td>7th Street/ Maritime Street</td><td>PM
SAT</td><td>59.1
33.5</td><td>E
C</td><td>64.6
35.3</td><td>E
D</td><td>41.4
31.4</td><td>D
C</td></tr>
</table>
Notes: Bold text indicates potentially unacceptable intersection operations.
[a] Delay presented in seconds per vehicles
[b] LOS = level of service
Source: Fehr & Peers 2014</td><td>project-generated trips as project phases are developed. Prior to the generation of approximately 136 project trips, project implementer to seek approval from City of Oakland for signal upgrade.</td><td></td><td></td><td>project vehicle trips during the PM peak hour.</td></tr>
<tr><td>MM-TRA-3. Provide improvements to separate passive park users from active Bay Bridge Trail users
The project implementer shall provide additional pavement width and markings near the Bay Bridge Trail access locations in Gateway Park, including directional signage and striping, and potentially fencing to separate passive park users from active Bay Bridge Trail users.</td><td>Project implementer to provide additional pavement width, marking, directional signage, and striping.</td><td>Project Implementer</td><td>Implementing Agency</td><td>Prior to commencement of operation of Phase 2</td></tr>
<tr><td>MM-TRA-4. Upgrade intersection pedestrian and bicycle facilities at the West Grand Avenue/Frontage Road/I-80 ramps (Study Intersection 3)
The project implementer shall coordinate with Caltrans and the City of Oakland to upgrade the marked crosswalk along the south leg of the intersection. The project implementer shall</td><td>Project implementer to coordinate with Caltrans and</td><td>Project Implementer</td><td>Implementing Agency</td><td>Prior to commencement of</td></tr>
</table>

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
install pedestrian and bicycle signal heads and upgrade the traffic signal equipment as necessary to accommodate the pedestrian and bicycle movement across the intersection.	the City of Oakland to upgrade marked crosswalk.			operation of Phase 1.
MM-TRA-5. Develop and implement a way-finding plan The project implementer shall develop a way-finding plan for both vehicles and nonmotorized visitors to the site. Installation of signage at various decision points along access routes would reduce driver confusion and reduce circuitous travel though the area for all modes of travel. The project implementer shall coordinate with the City of Oakland, Caltrans, and/or the Port of Oakland as needed for improvements within their respective jurisdictions.	Project implementer to develop way-finding plan for vehicles and visitors to the site and coordinate with City of Oakland, Caltrans, and/or Port of Oakland as needed for improvements.	Project Implementer	Implementing Agency	Prior to commencement of operation of Phase 1
MM-TRA-6. Provide emergency evacuation plan and additional emergency access to Gateway Park, including parking management during special events. The project implementer shall provide a second emergency vehicle access to the Gateway Park, possibly through use of the Bay Trail, or provide an emergency service program and emergency evacuation plan using waterborne vessels. The project implementer shall coordinate with the City of Oakland to implement this measure. The project implementer shall develop and implement an Emergency Evacuation Plan for Gateway Park that identifies all potential points of access and egress, public communication strategy, emergency procedures and notifications, and an implementing strategy. The plan shall include requirements for training of park staff. The performance standard for the plan is that it provide for the safe access of emergency vehicles to the park at all times and the safe evacuation by vehicle, foot or bicycle of park visitors in the case of an emergency at all times. For special events, the project implementer shall require the event proponent to prepare a Special Event Emergency Evacuation Plan for any large (> 250 persons) special event planned	Project implementer to provide a second emergency vehicle access to Gateway Park or provide an emergency service program and emergency evacuation plan using waterborne vessels and develop and	Project Implementer	Implementing Agency	Prior to commencement of operation of Phase 1.

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
to be held at the park containing the same information as the park plan, but addressing the specific event parameters. The performance standard for the plan is that it provide for the safe access of emergency vehicles to the park at all times during the event and the safe evacuation by vehicle, foot or bicycle of all event attendees in the case of an emergency during the event. The project implementer shall also require the event proponent to prepare and implement a parking management plan that identifies strategies to reduce and manage the parking demand during special events. The following strategies could be considered. Work with AC Transit to provide fixed-route and special event transit service to the site. • Provide shuttles from the MacArthur and/or West Oakland BART stations during the event. • Implement variable event parking pricing. • Use changeable message signs to direct visitors to other available parking areas, such as at the Middle Harbor Shoreline Park, and shuttle visitors to the park. • Provide valet parking during special events to maximize capacity of on-site lots. • Implement parking time limits in the park to encourage vehicle turnover. • Provide bicycle parking to encourage park guests to use bicycling as their primary mode of travel to the park. • The performance standard of this measure is the avoidance of lengthy vehicle delays on Burma Road between the Park and Maritime Blvd. that might otherwise hinder emergency vehicle access.	implement an Emergency Evacuation Plan, and require event proponent to prepare Special Event Emergency Evacuation Plan for special events.			
MM-TRA-7. Install protected permitted phasing and upgrade traffic signal equipment at the West Grand Avenue/Mandela Parkway (northbound) intersection The project implementer shall coordinate with the City of Oakland to install protected permitted phasing for the eastbound left-turn movement and upgrade the traffic signal equipment as necessary to provide video detection bicyclists.	Project implementer to coordinate with the City of Oakland to install protected permitted phasing and upgrade signal equipment.	Project Implementer	Implementing Agency	Prior to commencement of operation of the last project phase.
UTILITIES				

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
MM-UTIL-1. Coordinate with and obtain approval from EBMUD during design of outfall crossings The project implementer shall consult with EBMUD to ensure that outfall crossings and other project elements do not result in a substantial hazard to the existing outfall alignment within the project site. The final project design shall incorporate, subject to EBMUD review and approval, the following components. • Design specifications for engineered bridge crossings and at-grade crossings over the outfall alignment. • Maximum weight of light maintenance vehicles. • Precautions to prevent unauthorized crossings (e.g., barriers, signage). • Maximum permitted fill elevation over the top of the outfall pipe. • Siting of major project elements in relation to the outfall. • Tree planting near the outfall alignment. Issuance of an encroachment permit will indicate EBMUD's approval of the final project design.	Project implementer to consult with EBMUD to ensure that outfall crossing and other elements do not result in a substantial hazard to the existing outfall alignment.	Project Implementer	Implementing Agency	Prior to issuance of encroachment permit for any construction located on EBMUD outfall crossing (Phase 1, Phase 2, and Port Playground portion of Phase 3).
MM-UTIL-2. Maintain continued EBMUD access to outfall utility holes and vents The project implementer shall ensure that EBMUD has continued access to outfall utility holes and vents in order to perform routine and emergency maintenance. Utility holes and vent stack bases shall be raised or adjusted to new grade levels as needed. Park grading and features shall allow EBMUD maintenance vehicle access to all manholes and vent locations. Compliance with this mitigation measure shall be indicated through issuance of an encroachment permit by EBMUD.	Project implementer to ensure that EBMUD has continued access to outfall utility holes and vents.	Project Implementer	Implementing Agency / EBMUD	Prior to Issuance of Encroachment Permit for any construction located on EBMUD outfall crossing (Phase 1, Phase 2, and Port Playground portion of Phase 3)

Mitigation Measure	Action	Implementing Party	Monitoring Party	Timing
MM-UTIL-3. Protect outfall during project construction Prior to the commencement of project construction activities, the project implementer shall coordinate with EBMUD to establish appropriate measures for protecting the outfall during construction activities. Such measures shall include, but shall not be limited to the following measures. • Siting distance(s) for materials storage, parking, and operation of vehicles from the center line of the outfall. • Designated crossing locations for construction vehicles and equipment. • Inspection and monitoring procedures during construction.	Project implementer to coordinate with EBMUD to establish appropriate measures for protecting the outfall during construction activities.	Project Implementer/ EBMUD	Implementing Agency / EBMUD	Prior to commencement of project construction activities for any construction located on EBMUD outfall crossing (Phase 1, Phase 2, and Port Playground portion of Phase 3).

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